Journal of Neonatal Surgery
ISSN(Online): 2226-0439
Vol. 14, Issue 22s (2025)
https://www.jneonatalsurg.com

OPEN ACCESS

Unexpected Culprit: A case of Acetaminophen induced SJS-TEN in a young child

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Cite this paper as: Dr. Abhinav Maheshwari, Dr. Bal Krishna Garud, Dr. Saurabh Suresh, Dr. Shailaja Mane, Dr. Sanjay Chavan, Dr. Ruhi Shaligram, (2025). Unexpected Culprit: A case of Acetaminophen induced SJS-TEN in a young child. *Journal of Neonatal Surgery*, 14 (22s), 585-588.

ABSTRACT

Stevens–Johnson Syndrome (SJS) and Toxic Epidermal Necrolysis (TEN) are rare but potentially life-threatening mucocutaneous reactions most often triggered by medications such as antibiotics or anticonvulsants. Acetaminophen, a commonly used antipyretic in pediatric practice, is an uncommon but documented cause. We present a rare case of SJS-TEN overlap in a 2-year-old boy following acetaminophen administration, involving approximately 25% of the body surface area. Prompt discontinuation of the offending drug, coupled with supportive care and early corticosteroid therapy, led to complete recovery without complications. This case underscores the importance of clinical vigilance and timely intervention, even with routinely prescribed medications in children

Keyword: *Acetaminophen, Stevens–Johnson Syndrome, Toxic Epidermal Necrolysis, Pediatric Dermatology, Drug Hypersensitivity, Corticosteroids*

1. INTRODUCTION

Stevens–Johnson Syndrome (SJS) and Toxic Epidermal Necrolysis (TEN) are considered two ends of a spectrum of severe cutaneous adverse drug reactions. SJS is characterized by <10% body surface area (BSA) detachment, TEN involves >30%, while SJS-TEN overlap involves 10–30%. These disorders are typically precipitated by drugs, with anticonvulsants, sulfonamides, and NSAIDs being the most common offenders. However, acetaminophen (paracetamol), despite its widespread use and generally favorable safety profile, has occasionally been implicated.

Though rare in young children, such severe reactions can rapidly become life-threatening. The overall incidence of SJS and TEN in children is estimated to be 6.3 and 0.5 per 100,000 respectively. Prompt recognition and appropriate management can drastically improve outcomes. We describe a clinically definitive case of acetaminophen-induced SJS-TEN overlap in a toddler, managed successfully with early corticosteroid therapy and supportive care.

2. CASE REPORT

A 2-year-old previously healthy male child, the firstborn of non-consanguineous parents, presented to the emergency department with a 2-day history of progressively worsening rash, skin peeling, and irritability. The onset of symptoms closely followed the administration of oral acetaminophen (15 mg/kg/dose) for febrile illness. There was no history of other medications, recent vaccinations, or infections. Developmental milestones were appropriate, and family history was non-contributory.

On presentation, the child was febrile (38°C), irritable, and had a widespread erythematous, purpuric maculopapular rash involving the face, trunk, and limbs. Classical targetoid lesions were visible over the chest and axillae, along with flaccid bullae and areas of epidermal detachment involving approximately 25% of the BSA. Notably, the lips were covered with hemorrhagic crusts, and marked periorbital edema was present, although ocular and genital mucosae were spared. Nikolsky's sign was positive. Systemic examination was otherwise unremarkable

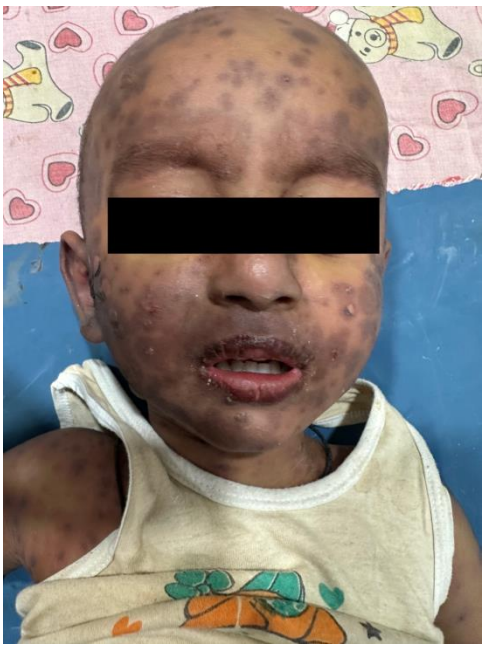

Figure 1: Lip crusting and periorbital edema in the acute phase

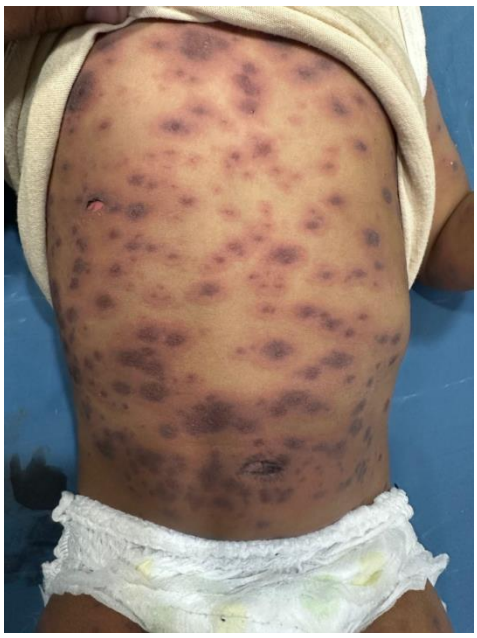

Figure 2: Multiple targetoid lesions over chest and axilla

Laboratory investigations revealed leukocytosis (WBC 15.2×10^9/L) with neutrophilic predominance, and a mildly elevated C-reactive protein (24 mg/L). Liver and renal function tests were within normal limits. Mycoplasma pneumoniae IgM was negative, and blood cultures remained sterile. Skin swabs did not grow any pathogens. In view of the classical clinical presentation, a dermatology consult confirmed the diagnosis of SJS-TEN overlap. Skin biopsy was deferred.

3. MANAGEMENT

Acetaminophen was promptly withdrawn. The child was admitted to the pediatric intensive care unit and managed with meticulous supportive care, which included:

- Intravenous fluid resuscitation to compensate for insensible losses.
- Saline-soaked sterile dressings to cover areas of skin detachment.
- Nutritional support via a soft oral diet.
- Pain relief with rectal paracetamol and morphine as needed.
- Prophylactic ocular lubrication despite no direct ocular involvement.

Given the early presentation and extent of skin involvement, oral prednisolone was initiated at a dose of 1.5 mg/kg/day within 48 hours of rash onset. Over the subsequent 72 hours, no new lesions appeared, and existing lesions showed signs of re-epithelialization. The corticosteroid was continued for a total of 7 days and tapered over the next two weeks. The child tolerated the therapy well, with no secondary infections or steroid-related adverse effects observed.

Antibiotics were not administered, as there were no signs of systemic bacterial infection. The lip lesions were managed with topical antiseptics and gentle cleansing.

4. OUTCOME AND FOLLOW-UP

By day 10 of hospitalization, most lesions had healed with post-inflammatory hyperpigmentation. Full re-epithelialization was observed by the end of the third week. The child was discharged after 21 days of hospitalization in a stable condition. At one-month follow-up, the child remained asymptomatic with no ocular or cutaneous sequelae. The adverse drug reaction was clearly documented in the child's medical records, and the parents were educated about the avoidance of acetaminophen and similar analgesics in the future.

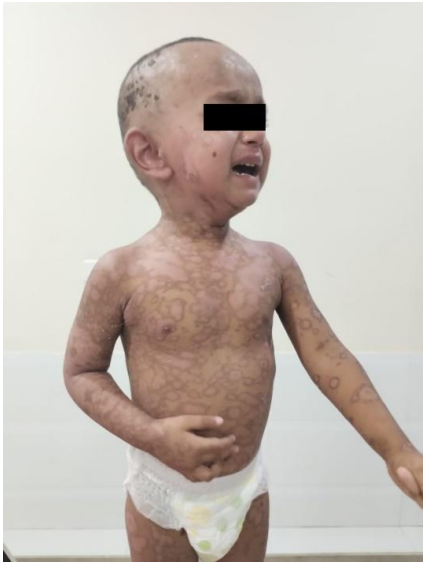

Figure 3: Healing with post-inflammatory hyperpigmentation after 3 weeks

5. DISCUSSION

Acetaminophen is widely used for the treatment of fever and pain in children due to its safety profile. However, rare hypersensitivity reactions such as SJS/TEN have been reported in both adult and pediatric populations. These reactions are thought to be immune-mediated, idiosyncratic, and not dose-dependent.

This case highlights the need for high clinical suspicion when a child presents with a new-onset rash following any recent medication. The temporal association between acetaminophen use and symptom onset, along with the absence of alternative

triggers, supports causality in this case.

Management of SJS/TEN relies heavily on supportive care, ideally in a specialized unit. The role of corticosteroids remains controversial. Some studies suggest they may delay healing or predispose to infections, while others—especially in pediatric patients—demonstrate benefit when initiated early. In our case, the administration of corticosteroids within 48 hours of rash onset was associated with rapid stabilization and recovery.

Emerging therapies such as IVIG, cyclosporine, and TNF-alpha inhibitors have shown promise, but robust pediatric data are limited. Regardless of the therapeutic approach, early diagnosis, drug withdrawal, and close multidisciplinary monitoring are paramount.

6. CONCLUSION

This case underscores the critical need for vigilance in recognizing severe adverse reactions to commonly used medications in children. Although rare, acetaminophen can trigger SJS/TEN, necessitating prompt discontinuation, supportive care, and consideration of corticosteroids in select cases. Awareness, timely intervention, and thorough caregiver education are vital to ensure favorable outcomes and prevent recurrence.

REFERENCES

[1] Wang L, Varghese S, Bassir F, Lo YC, Ortega CA, Shah S, et al. Stevens-Johnson syndrome and toxic epidermal necrolysis: A systematic review of case reports from 1980 to 2020. Front Med (Lausanne). 2022;9:949520.

[2] Indian Academy of Pediatrics (IAP). Standard Treatment Guidelines 2022 – Stevens–Johnson Syndrome/Toxic Epidermal Necrolysis.

[3] Antoon JW, Goldman JL, Lee B, Schwartz A. Incidence, outcomes, and resource use in children with Stevens-Johnson syndrome and toxic epidermal necrolysis. Pediatr Dermatol. 2018;35(2):182–187.

[4] Rajput R, Sagari S, Durgavanshi A, Kanwar A. Paracetamol-induced Steven-Johnson syndrome: A rare case report. Contemp Clin Dent. 2015;6(Suppl 1):S260–3.

[5] Khor AH, Lim KS, Tan CT, Kwan Z, Tan WC, Wu DB, et al. HLA-A31:01 and HLA-B15:02 association with Stevens-Johnson syndrome and toxic epidermal necrolysis to carbamazepine in a multiethnic Malaysian population. Pharmacogenet Genomics. 2017;27(7):275–278.

[6] Prajapat M, Shetty S, Panda PK, Suresh P. Management of Stevens-Johnson Syndrome-Toxic Epidermal Necrolysis: Looking Beyond Guidelines. J Pharmacol Pharmacother. 2018;9(1):1–7.

[7] Hsu DY, et al. Pediatric Stevens-Johnson Syndrome and Toxic Epidermal Necrolysis in the United States. J Am Acad Dermatol. 2017;76(5):811–817.e4.

[8] Paulmann M, Mockenhaupt M. Fever in Stevens-Johnson Syndrome and Toxic Epidermal Necrolysis in Pediatric Cases: Laboratory Work-up and Antibiotic Therapy. Pediatr Infect Dis J. 2017;36(5):513–515.

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